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Applicant	: Tsann-Long Su et al.	Art Unit	: 1614
Serial No.	: 10/799,576	Examiner	: Unknown
Filed	: March 12, 2004		
Title	: 9-ANILINOACRIDINE ALKYLATING AGENTS		

Commissioner for Patents
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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: July 13, 2004

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08919-118001	Application No. 10/799,576
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Tsann-Long Su et al.	
(37 CFR §1.98(b))		Filing Date March 12, 2004	Group Art Unit 1614

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
/RD/	AA	Arcamone, F. M.; Animati, F. A.; Configliacchi, E.; D'Alessio, R.; Geroni, C.; Giuliani, F. C.; Lazzari, E.; Menozzi, M.; Mongelli, N.; Penco, S.; Verini, M. A. Synthesis, DNA-Binding Properties, and Antitumor Activity of Novel Distamycin Derivatives. J. Med. Chem. 1989, 32, 774-778.
	AB	Baraldi, P. G.; Balboni, G.; Romagnoli, R.; Spalluto, G.; Cozzi, P.; Geroni, C.; Mongelli, N.; Rutigliano, C.; Bianchi, N.; Gambari, R. PNU 157977: A New Potent Antitumor Agent Exhibiting Low in vivo Toxicity in Mice Injected with L1210 Leukemia Cells. Anti-Cancer Drug Desig, 1999, 14, 71-76.
	AC	Baraldi, P. G.; Romagnoli, R.; Guadix, A. E.; Pineda des las Infantas, M. J.; Gallo, M. A.; Espinosa, A.; Martinez, A.; Bingham, J. P.; Hartley, J. A. Design, Synthesis, and Biological Activity of Hybrid Compounds between Uramustine and DNA Minor Groove Binder Distamycin A. J. Med. Chem. 2002, 45, 3630-3638.
	AD	Baraldi, P. G.; Romagnoli, R.; Pavani, M. G.; Nunez, M. del C.; Bingham, J. P.; Hartey, J. A. Benzoyl and Cinnamoyl Nitrogen Mustard Derivatives of Benzoheterocyclic Analogues of Tallimustine: Synthesis and Antitumor Activity. Bioorg. & Med. Chem. 2002, 10, 1611-1618.
	AE	Becker, A. and Rickard, R. W. An Expedient Synthesis of 3-Amino-5-hydroxy- benzoic acid and its N-Alkyl Analogues. Tetrahedron, 1983, 39, 4189-4192.
	AF	Brendel, M. Ruhland, A. Relationship between functionality and genetic toxicology of selected DNA-damaging agents. Mutat. Res. 1984, 133, 51-85.
/RD/	AG	Connors, T.A., Antitumor alkylating agents: Cytotoxic Action and Organ Toxicity. In Schmahl, D. Kaldor, J. M. (eds.) Carcinogenicity of alkylating cytostatic drugs. IACR Sci. Publ. No. 78 (Lyon: IARC). 1986, p. 143-145.
	AH	Cozzi, P.; Beria, I.; Caldarelli, M.; Capolongo, L.; Geroni, C.; Mazzini, S.; Ragg, E. Phenyl Sulfur Mustard Derivatives of Distamycin. Bioorg. & Med. Chem. Letters, 2000, 10, 1653-1656.
	AI	Creech, H. J.; Preston, R. K.; Peck, R. M.; O'Connell, A. P. Antitumor and Mutagenic Properties of a Variety of Heterocyclic Nitrogen and Sulfur Mustards. J. Med. Chem. 1972, 15, 739-746.
	AJ	Denny, W. A.; Atwell, G. J., and Cain, B. F. Potential Antitumor Agents. 32. Role of Agent Base Strength in the Quantitative Structure-Antitumor Relationships for 4'-(9-Acridinylamino)methanesulfonamide Analogues. J. Med. Chem. 1979, 22, 1453-1460.
	AK	Denny, W.A. Acridine-Based Antitumor Agents, In The Chemistry of Antitumor Agents. D.E.V. Wilman Ed.; Blackie, Chapman and Hall: New York, 1990; pp. 1-29.
	AL	Fan, J.-Y.; Valu, K. K.; Woodgate, P. D.; Baguley, B. C.; Denny, W. A. Aniline Mustard Analogues of the DNA-Intercalating Agent Amsacrine: DNA Intercalation and Bilogical Activity. Anti-Cancer Drug Design, 1997, 12, 181-203.
	AM	Gourdie, T. A.; Valu , K. K.; Gravatt, G. L.; Boritzki, T. J.; Baguley, B. C.; Wakelin, L. P. G.; Wilson, W. R.; Woodgate P. D.; Denny, W. A. DNA-Directed Alkylating Agents. 1. Structure-Activity Relationships for Acridine-Linked Aniline Mustards: Consequences of Varying the Reactivity of the Mustard. J. Med. Chem. 1990, 33, 1177-1186.
	AN	Gravatt, G. L.; Baguley, B. C.; Wilson, W. R.; Denny, W. A. DNA-Directed Alkylating Agents. 4. 4-Anilinoquinoline-Based Minor Groove Directed Aniline Mustards. J. Med. Chem. 1991, 34, 1552-1560.
/RD/	AO	Hansson, J,; Lewensohn, R.; Ringborg, U.; Nilsson, B. Formation and removal of DNA cross-links induced by melphalan and nitrogen mustard in relation to drug-induced cytotoxicity in human melanoma cells. Cancer Res. 1987, 47, 2631-2637.

Examiner Signature	/Rita Desai/	Date Considered	06/13/2008

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Tsann-Long Su et al.	
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/RD/	AP	Hertzberg, R. P.; Dervan, P. B. Cleavage of Double Helical DNA by (Methidium-propyl-EDTA)iron(II). J. Am. Chem. Soc. 1982, 104, 313-315.
	AQ	Köhler, B.; Su, T.-L.; Chou, T.-C.; Jiang, X.-J.; Watanabe, K. A. Synthesis of Cyclopentanthraquinones: Analogues of Mitomycin C. J. Org. Chem. 1993, 58, 1680-1686.
	AR	Kohn, K. W.; Hartley, J. A.; Mattes, W. B. Mechanisms of DNA sequence-selective alkylation of guanine N7 positions by nitrogen mustards. Nucleic Acid Res. 1987, 15, 10531-10549.
	AS	Kohn, K. W.; Orr, A.; O'Connor, P. M. Synthesis and DNA-Sequence Selectivity of a Series of Mono- and Difunctional 9-Aminoacridine Nitrogen Mustards. J. Med. Chem. 1994, 37, 67-72.
	AT	Koyama, M.; Takahashi, K.; Chou, T.-C.; Darzynkiewicz, Z.; Kapuscinnski, J.; Kelly, T. R.; Watanabe, K.Y. Intercalating Agents with Covalent Bond Forming Capability. A Novel Type of Potential Anticancer Agents. 2. Derivatives of Chrysophanol and Emodin. J. Med. Chem. 1989, 32, 1594-1599.
	AU	Liu, L. F. DNA Topoisomerase Poison as antitumor Drugs. Annu. Rev. Biochem. 1989, 58, 351-357.
	AV	McClean, S.; Costelloe, C.; Denny, W. A.; Searcey, M.; Wakelin, L. P. G. Sequence Selectivity, Cross-Linking Efficacy and Cytotoxicity of DNA-Targeted 4-Anilinoquinoline Aniline Mustards. Anti-Cancer Drug Design, 1999, 14, 187-204.
	AW	Peck, R. M.; O'Connell, P.; Creech, H. J. Heterocyclic Derivatives of 2-Chlorethyl Sulfide with Antitumor Activity. J. Med. Chem. 1966, 9, 217-221.
/RD/	AX	Perehia, D.; Pullman, A. The molecular electrostatic potential of the B-DNA helix. II. The region of the adenine-thymine base pair. Theor. Chim. Acta. 1979, 50, 351-354.
	AY	Prakash, A. S.; Denny, W. A.; Gourdie, T. A.; Valu, K. K.; Woodgate, P. D.; Wakelin, L. P. G. DNA-directed alkylating ligands as potential antitumor agents: sequence specificity of alkylation by DNA-intercalating acridine-linked aniline mustard. Biochemistry, 1990, 29, 9799-9807.
	AZ	Rastogi, K.; Chou, T.-C.; Ting, C.-Y.; Chen, K.-T.; Hwang, J.; Su, T.-L. Synthesis and Biological Activity of AHMA-EDTA Conjugates. Med. Chem. Res. 2002, 11, 278-292.
	AAA	Rickards, R. W.; Rukachaisirikul, V. 3-Amino-5-hydroxybenzoic acid in Antibiotic Biosynthesis. IX The Status of Reduced Derivatives in Mitomycin Biosynthesis. Aust. J. Chem. 1987, 40, 1011-1015.
	ABB	Robertson, I. G.; Kestell, P.;Dormer, R. A.; Paxton, J. W. Involvement of Glutathione in the Metabolism of the Anilinoacridine Antitumor Agents IC 921 and Amsarcrine. Drug Metab. Drug. Interact. 1988, 6, 371-381.
	ACC	Robertson, I. G.; Palmer, B. D.; Paxton, J. W.; Shaw, G. J. Differencess in the Metabolism of the Antitumor Agents Amsarcrine and Its Derivative IC-921 in Rat and Mouse. Xenobiotica 1992, 22, 657-669.
	ADD	Schmahl, D. Carcinogenicity of anticancer drugs and specially alkylating agents. In Schmahl, D. Kaldor, J. M. (eds.) Carcinogenicity of alkylating cytostatic drugs. IACR Sci. Publ. No. 78 (Lyon: IARC). 1986, p. 29-35.
	AEE	Shoemaker, D. D.; Cysyk, R. L.; Gormley, P. E.; Desouza, J. J. V.; Malspeis, L. Metabolism of 4'-(9-Acridinylamino)methanesulfon-m-aniside by Rat Liver Microsomes. Cancer Res. 1984, 44, 1939-1945.
/RD/	AFF	Singer, B. The chemical effects of nucleic acid alkylation, and their relationship to mutagenesis and carcinogenesis. Prog. Nucl. Acids Res. Mol. Biol. 1975, 15, 219-284.

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/RD/	AGG	Su, T.-L. Development of DNA Topoisomerase II-Mediated Anticancer Agents, 3-(9-Acridinylamino)-5-hydroxymethylaniline (AHMAs) and Related Compounds. Current Med. Chem. 2002, 9, 1677-1688.
	AHH	Su, T.-L.; Chen, C.-H.; Huang, L.-F.; Chen, C.-H.; Basu, M. K.; Zhang, X.-G.; Chou, T.-C. Synthesis and Structure-Activity Relationships of Potential Anticancer Agents: Alkylcarbamates of 3-(9-Acridinylamino)-5-hydroxymethylamine. J. Med. Chem. 1999, 42, 4741-4748.
	AII	Su, T.-L.; Chou, T.-C.; Kim, J. Y.; Huang, J.-T.; Ciszewska, G.; Ren, W.-Y.; Otter, G. M.; Sirotnak, F. M.; Watanabe, K. A. 9-Substituted Acridine Derivatives with long Half-life and Potent Antitumor Activity: Synthesis and Structure-Activity Relationships. J. Med. Chem. 1995, 38, 3226-3235.
	AJJ	Suzukake, K.; Vistica, B. P.; Vistica, D. T. Dechlorination of L-phenylalanine mustard by sensitive and resistant tumor cells and its relationship to intracellular glutathione content. Biochem. Pharmacol. 1983, 32, 165-167.
	AKK	Turner, P. R.; Ferguson, L. R.; Denny, W. A. Polybenzamide Mustards: Structure-Activity Relationships for DNA Sequence-Specific Alkylation. Anti-Cancer Drug Design. 1999, 14, 61-70.
/RD/	ALL	Valu, K. K.; Gourdie, T. A.; Gravatt, G. L.; Boritzki, T. J.; Woodgate, P. D.; Baguley, B. C.; Denny, W. A. DNA-Directed Alkylating Agents. 3. Structure-Activity Relationships for Acridine-Linked Aniline Mustards: Consequences of Varying the Length of the Linker Chain. J. Med. Chem. 1990, 33, 3014-3019.
	AMM	Weiss, G. R.; Poggesi, I.; Rocchetti, M.; Demaria, D.; Mooneyham, T.; Reilly, D.; Vitek, L. V.; Whaley, F.; Patricia, E.; von Hoff, D. D.; O'Dwyer, P. A Phase I and Pharmacokinetic Study of Tallimustine [PNU152241 (FCE 24517)] in Patients with Advanced Cancer. Clin. Cancer Res. 1998, 4, 53-59.
	ANN	Wyatt, M. D.; Garbiras, B. J.; Haskell, M. K.; Lee, M.; Souhami, R. L.; Hartley, J. A. Structure-Activity Relationship of a Series of Nitrogen Mustard- and Pyrrole-Containing Minor Groove Binding Agents Related to Distamycin. Anti-Cancer Drug Designs, 1994, 9, 511-525.
/RD/	AOO	Wyatt, M. D.; Lee, M.; Hartley, J. A. Alkylation Specificity for a Series of Distamycin Analogues that tether Chloambucil. Anti-Cancer Drug Design, 1997, 12, 49-60.

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